



## **Grain Transportation Report**

A weekly publication of the
Transportation and Marketing Programs/Transportation Services Branch
www.ams.usda.gov/tmdtsb/grain

Dec. 29, 2005

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The next release is Jan. 5 '06

To Our Readers,

As 2005 draws to a close, we send our heartfelt thanks to the many industry representatives who regularly and voluntarily provide us with information and data. Thanks also to our readers for your continued interest and support.

While 2005 was an unusually challenging year for agricultural transportation, the United States continues to be a world leader in the transportation of agricultural commodities. The Nation's extensive transportation network of rural roads and highways, railroads, inland waterways, ports and port facilities is vital to maintaining our global competitiveness.

We like to think that through the Grain Transportation Report, we and you, our contributors and readers, are adding to our Nation's global competitiveness. With that in mind we have worked to expand and improve the Grain Transportation Report. The report now includes international components involving Mexico and Brazil. For Mexico, our second largest agricultural trading partner, we added a quarterly transportation indicator providing a logistics overview of land and water routes for U. S. grain to Mexico. For Brazil, our primary soybean marketing competitor, we added a quarterly transportation section illustrating the behavior of Brazil's soybean freight market.

The report also provides insight into current events that may impact agricultural transportation. Most recently, the report provided timely data and information regarding the impact of Hurricanes Katrina and Rita on grain transportation.

As we prepare to enter 2006, we would like to know how we are doing. Are we meeting your needs? Are there areas where we could improve? We welcome all suggestions for how we can better report on agricultural transportation. Suggestions may be sent to <a href="maintailtransportation">marina.denicoff@usda.gov</a>.

Again, thank you to the many industry representatives who regularly and voluntarily provide us with information and data and to our readers. We wish you happiness, success, and good health in the New Year.

Sincerely,

The Grain Transportation Report Team

#### **Grain Transportation Indicators**

Table 1--Grain transport cost indicators\*

	Truck	Rail**	Barge	Ocean	
Week ending				Gulf	Pacific
12/28/05	164	409	246	177	179
Compared with last week	<b>↓</b>	<b>↓</b>	<b>↓</b>	unchanged	<b>↓</b>

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car);

barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)

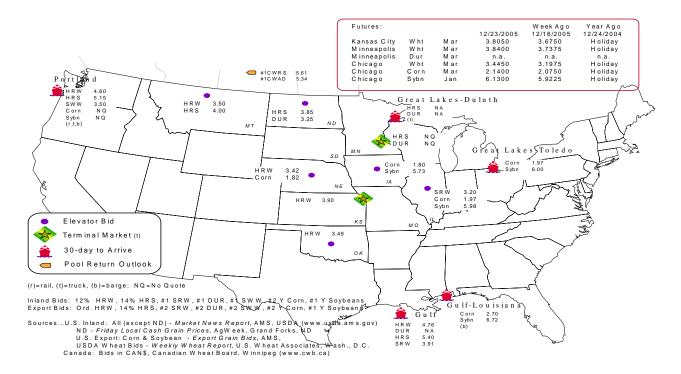
Commodity	Origindestination	12/23/2005	12/16/2005
Corn	ILGulf	-0.73	-0.76
Corn	NEGulf	-0.88	-0.93
Soybean	IAGulf	-0.99	-1.04
HRW	KSGulf	-0.86	-0.91
HRS	NDPortland	-1.30	-1.27

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1 **Grain bid summary** 



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#### **Rail Transportation**

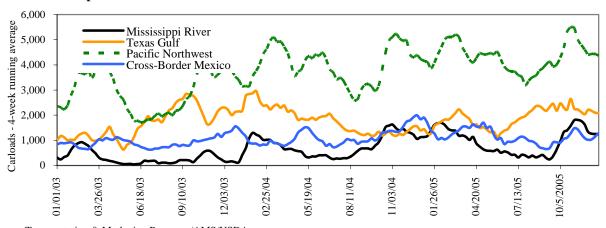
Table 3--Rail deliveries to port (carloads)\*

			Cross-Border	Pacific	Atlantic &	
Week ending	Mississippi Gulf***	Texas Gulf	Mexico****	Northwest	East Gulf	Total
12/21/2005 <sup>p</sup>	1,505	2,272	1,385	4,407	301	9,870
12/14/2005 <sup>r</sup>	1,066	1,505	1,076	4,746	334	8,727
2005 YTD	49,551	97,745	59,741	220,065	15,424	442,526
2004 YTD	41,957	91,067	57,686	205,713	10,720	407,143
2005 as % of 2004	118	107	104	107	144	109
Total 2004	43,102	92,073	59,102	209,625	10,986	414,888
Total 2003**	n/a	88,194	48,805	157,125	20,509	n/a

<sup>(\*)</sup> Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Excludes 53rd week; (\*\*\*) Mississippi Gulf data back to January, 2004 from several new sources has been added; (\*\*\*\*) Cross-border Mexico data for 2004 and 2005 has been amended to reflect amendments submitted by our sources. YTD= year-to-date; p=preliminary data; r = revised data

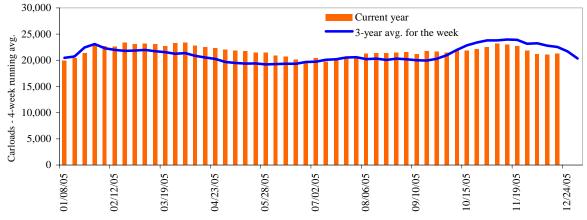
Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2 Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3 **Total weekly U.S. grain car loadings for Class I railroads** 



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

	E	ast		West		U.S. total	Car	nada
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
12/17/05	3,197	3,051	11,119	564	4,930	22,861	4,749	4,952
This week last year	2,657	3,269	9,645	584	5,636	21,791	5,650	4,252
2005 YTD	147,117	161,600	459,501	26,581	297,126	1,091,925	218,050	207,323
2004 YTD	138,105	164,783	442,782	26,665	318,073	1,090,408	230,719	204,012
2005 as % of 2004	107	98	104	100	93	100	95	102
Total 2004	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

Table 5--Rail car auction offerings\*, week ending 12/24/05 (\$/car)\*\*

Delivery for:	Feb-06	Mar-06	Apr-06
BNSF <sup>1</sup>			
COT/N. grain	no offer	\$177	\$58
COT/S. grain	no offer	\$96	\$24
$UP^2$			
GCAS/Region 1	no offer	no offer	no offer
GCAS/Region 2	no offer	no offer	no offer

<sup>\*</sup>Auction offerings are for single-car and unit train shipments only.

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada. S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

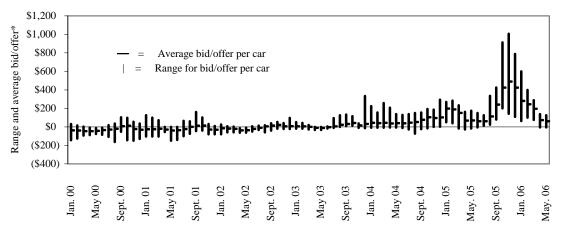
<sup>\*\*</sup>Average premium/discount to tariff, last auction

<sup>&</sup>lt;sup>1</sup>BNSF - COT = Certificate of Transportation

<sup>&</sup>lt;sup>2</sup>UP - GCAS = Grain Car Allocation System

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Secondary rail car market, delivery month-year



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market, week ending 12/24/05 (\$/car)\*

	Delivery period					
	Feb-06	Mar-06	Apr-06	<b>May-06</b>		
BNSF-GF	\$300	\$250	\$50	\$43		
Change from last week	\$50	\$58	\$0	\$0		
UP-Pool	\$328	\$183	\$100	\$100		
Change from last week	\$124	\$79	\$0	\$0		

\*Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

 $Missing\ value = no\ bid\ quoted;\ GF = guaranteed\ freight;\ Pool = guaranteed\ pool$ 

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

Table 7--Tariff rail rates for unit and shuttle train shipments\*

Effective date:	Outsta Destan	Destination Destina	Dateloon	Date land to the	D - 4 - /L 1 - 19 9
12/5/2005	Origin Region	Destination Region	Rate/car	Rate/metric ton	Rate/bushel**
<u>Unit train*</u>	G11.1 TT		44.044	420.74	40.74
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$2,420	\$26.68	\$0.73
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$4,117	\$45.38	\$1.24
	Minneapolis, MN	Portland, OR	\$3,848	\$42.42	\$1.15
	South Central, ND	Portland, OR	\$3,841	\$42.34	\$1.15
	Northwest, KS	Portland, OR	\$4,490	\$49.49	\$1.35
	Chicago, IL	Richmond, VA	\$2,161	\$23.82	\$0.65
Corn	Chicago, IL	Baton Rouge, LA	\$2,610	\$28.77	\$0.73
	Council Bluffs, IA	Baton Rouge, LA	\$2,470	\$27.23	\$0.69
	Kansas City, MO	Dalhart, TX	\$1,965	\$21.66	\$0.55
	Minneapolis, MN	Portland, OR	\$3,130	\$34.50	\$0.88
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.55
	Columbus, OH	Raleigh, NC	\$1,850	\$20.39	\$0.52
	Council Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
Soybeans	Chicago, IL	Baton Rouge, LA	\$2,655	\$29.27	\$0.80
	Council Bluffs, IA	Baton Rouge, LA	\$2,515	\$27.72	\$0.75
	Minneapolis, MN	Portland, OR	\$3,610	\$39.79	\$1.08
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.59
	Chicago, IL	Raleigh, NC	\$2,561	\$28.23	\$0.77
Shuttle Train*					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,648	\$40.21	\$1.09
Corn	Fremont, NE	Houston, TX	\$2,304	\$25.40	\$0.65
	Minneapolis, MN	Portland, OR	\$3,024	\$33.33	\$0.85
Soybeans	Council Bluffs, IA	Houston, TX	\$2,412	\$26.59	\$0.72
*	Minneapolis, MN	Portland, OR	\$3,170	\$34.94	\$0.95

<sup>\*</sup>A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

<sup>\*\*</sup>Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico, 2005

Effective date: 12/05/05

Commodity	Origin State	<b>Border crossing region</b>	Train size	Rate <sup>1</sup>	Rate/metric ton	Rate/bushel**
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Unit	\$4,004	\$40.91	\$1.11
	OK	El Paso, TX	Shuttle	\$2,235	\$22.84	\$0.62
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$4,298*	\$43.92	\$1.19
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,214	\$32.84	\$0.83
	NE	Brownsville, TX	Unit	\$3645*	\$37.24	\$0.95
	IA	Eagle Pass, TX	Unit	\$3,444	\$35.19	\$0.89
	MO	Eagle Pass, TX	Shuttle	\$3040*	\$31.06	\$0.79
	NE	Eagle Pass, TX	Shuttle	\$3440*	\$35.15	\$0.89
	IA	Laredo, TX	Shuttle	\$3,367	\$34.40	\$0.87
Soybean	IA	Brownsville, TX	Shuttle	\$2,989	\$30.54	\$0.83
	MN	Brownsville, TX	Shuttle	\$3,031	\$30.97	\$0.84
	NE	Brownsville, TX	Shuttle	\$2,798	\$28.59	\$0.78
	NE	Eagle Pass, TX	Shuttle	\$2,874	\$29.37	\$0.80
	IA	Laredo, TX	Unit	\$3,028	\$30.94	\$0.84

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

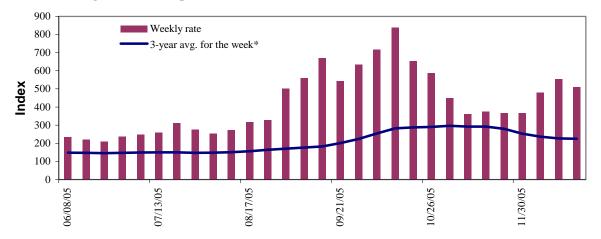
<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

<sup>\*</sup>High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

<sup>\*\*</sup>Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu Sources: www.bnsf.com, www.uprr.com

#### **Barge Transportation**

Figure 5 **Illinois River barge rate index - quotes** 



Note: Index = percent of tariff rate; \*4-week moving average Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 9--Barge rate quotes: southbound barge freight

Location	12/21/2005	12/14/2005	Jan. '06	Mar. '06
Twin Cities	n/a	n/a	n/a	n/a
Mid-Mississippi	n/a	n/a	n/a	375
Illinois River	508	552	487	361
St. Louis	448	436	413	337
Lower Ohio	423	414	398	350
Cairo-Memphis	351	359	348	306

Index = percent of tariff, based on 1976 tariff benchmark rate Source: Transportation & Marketing Programs/AMS/USDA

Benchmark tariff rates

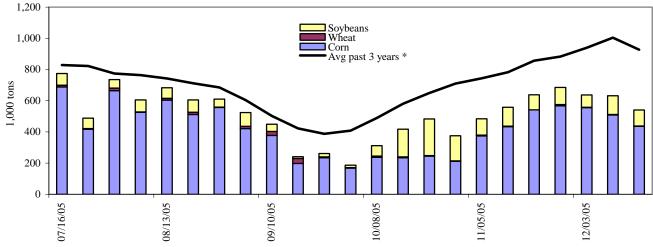
# **Calculating barge rate per ton:** (Index \* 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Note: The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).



Figure 7 **Barge movements on the Mississippi River (Locks 27 - Granite City, IL)** 



\* 4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

Week ending 12/17/2005	Corn	Wheat	Soybean	Other	Total
Mississippi River					
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	186	0	83	0	269
Alton, IL (L26)	455	2	111	16	584
Granite City, IL (L27)	436	2	103	10	551
Illinois River (L8)	240	2	30	11	283
Ohio River (L52)	71	12	55	0	138
Arkansas River (L1)	0	13	20	16	49
2005 YTD	22,891	1,578	6,952	695	32,116
2004 YTD	24,902	2,631	6,162	815	34,510
2005 as % of 2004 YTD	92	60	113	85	93
Total 2004	26,235	2,701	6,784	843	36,563

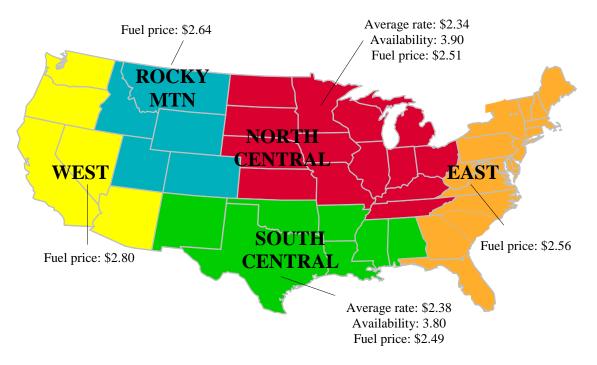
 $YTD\ (year-to-date)\ and\ calendar\ year\ total\ includes\ Miss/27,\ Ohio/52,\ and\ Ark/1;\ "Other"\ refers\ to\ oats,\ barley,\ sorghum,\ and\ rye.$ 

 $Source:\ U.S.\ Army\ Corp\ of\ Engineers\ (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)$ 

Note: Total may not add exactly, due to rounding

#### **Truck Transportation**

Figure 8
U.S. grain truck market advisory, 3rd quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, www.eia.doe.gov

Table 11--U.S. grain truck market overview, 3rd quarter 2005

Region	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
				Rating com	pared to same quart	er last year
	<sup>1</sup> Rate per mile			1=Very easy	1=M	uch lower
				to	to	
				5=Very difficult	5=Much higher	
National average <sup>2</sup>	3.16	2.38	2.04	3.6	2.9	3.2
North Central region	2.82	2.22	1.98	3.9	2.9	3.2
Rocky Mountain	4.23	2.28	1.96	2.4	2.8	3.2
South Central	2.73	2.28	2.14	3.8	3.0	3.3
West	4.54	3.29	2.65	3.7	3.3	3.0

<sup>&</sup>lt;sup>1</sup>Rates are based on trucks with 80,000 lb gross vehicle weight limit

Source: Transportation and Marketing Programs/AMS/USDA

<sup>&</sup>lt;sup>2</sup>National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 12--Retail on-highway diesel prices\*, week ending 12/26/05 (US\$/gallon)

			Change from		
Region	Location	Price	Week ago	Year ago	
I	East Coast	2.481	-0.018	0.436	
	New England	2.643	-0.004	0.447	
	Central Atlantic	2.599	-0.010	0.438	
	Lower Atlantic	2.416	-0.022	0.434	
II	Midwest <sup>1</sup>	2.420	-0.023	0.461	
III	Gulf Coast <sup>2</sup>	2.421	-0.014	0.493	
IV	Rocky Mountain	2.410	0.000	0.449	
V	West Coast	2.523	0.018	0.483	
	California	2.543	0.022	0.446	
Total	U.S.	2.448	-0.014	0.461	

<sup>\*</sup>Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

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<sup>&</sup>lt;sup>1</sup>Same as North Central

<sup>&</sup>lt;sup>2</sup>Same as South Central

## **Grain Exports**

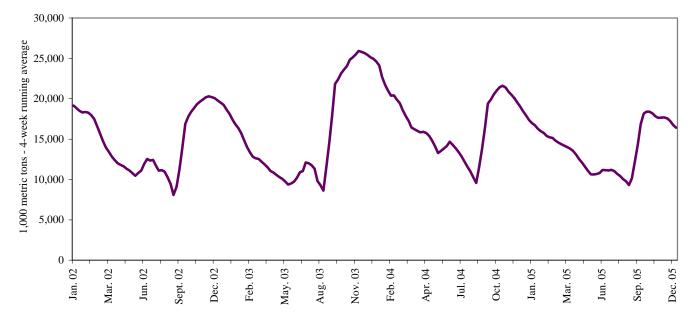
Table 13--U.S. export balances (1,000 metric tons)

	Wheat						Corn	Soybeans	Total
Week ending 1/	HRW	SRW	HRS	SWW	DUR	All wheat			
12/15/2005	2,868	279	1,139	800	30	5,116	7,037	4,004	16,157
This week year ago	1,700	495	1,250	776	78	4,299	7,770	5,692	17,761
Cumulative exports-crop year 2/									
2005/06 YTD	5,932	1,207	4,556	2,309	480	14,484	14,138	9,642	38,264
2004/05 YTD	5,459	2,249	4,643	2,993	366	15,710	14,490	12,897	43,097
2005/06 as % of 2004/05	109	54	98	77	131	92	98	75	89
2004/05 Total	9,407	3,217	8,083	4,773	686	26,117	44,953	29,878	100,948
2003/04 Total	12,697	3,785	6,928	4,895	1,053	29,359	47,704	24,108	101,171

Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/= Current unshipped export sales to date

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 9 U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

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<sup>2/</sup> = Shipped export sales to date

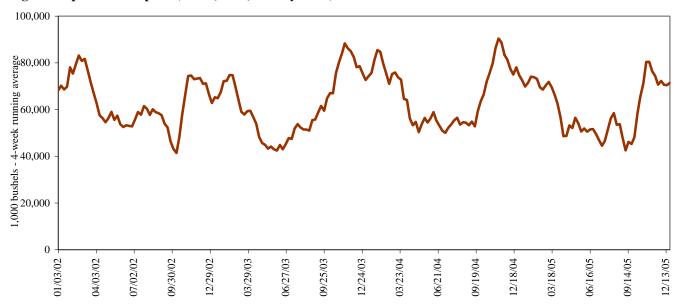
Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

	P	acific Reg	ion	Mississippi Gulf		Texas Gulf			Port Region total			
Week ending	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
12/22/05	269	128	116	13	547	411	307	18	4	512	971	329
2005 YTD	10,610	9,822	6,169	4,605	27,091	14,529	7,620	808	36	26,601	46,226	8,465
2004 YTD	12,374	10,089	4,557	7,138	32,715	15,530	8,439	173	20	27,020	55,384	8,632
2005 as % of 2004	86	97	135	65	83	94	90	468	178	98	83	98
2004 Total *	12,600	10,154	4,787	7,269	33,321	15,952	8,558	186	25	27,541	56,541	8,769

Source: Grain Inspection, Packers and Stockyards Aministration/USDA (www.gipsa.usda.gov); YTD: year-to-date; \* includes 53rd week

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10 U.S. grain inspected for export (wheat, corn, and soybeans)



Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

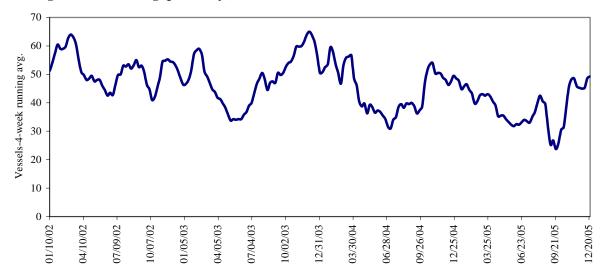
## **Ocean Transportation**

Table 15--Weekly port region grain ocean vessel activity (number of vessels)

				Pacific	Vancouver
		Gulf		Northwest	B.C.
		Loaded	Due next		
Date	In port	7-days	10-days	In port	In port
12/22/2005	29	48	58	6	6
12/15/2005	27	54	65	9	7
2004 range	(1043)	(2573)	(3896)	(416)	(018)
2004 avg.	24	45	61	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11 **Gulf Port grain vessel loading (past 7 days)** 



Source: Transportation & Marketing Programs/AMS/USDA

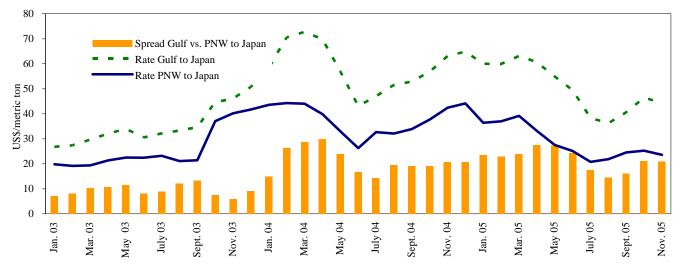
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Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)

Countries/ regions	2005 3 <sup>rd</sup> qtr	2004 3 <sup>rd</sup> qtr	Percent change	Countries/ regions	2005 3 <sup>rd</sup> qtr	2004 3 <sup>rd</sup> qtr	Percent change
Gulf to	_			Pacific NW to			_
Japan	36.33	50.08	-27	Japan		37.00	
China		54.00		Argentina/Brazil to			
Taiwan				China	32.00		
N. Africa	24.25			N. Africa	40.00		
Med. Sea				Turkey	25.00		

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12 **Grain vessel rates, U.S. to Japan** 



Source: Baltic Exchange (www.balticexchange.com)

Table 17--Ocean freight rates for selected shipments, week ending 12/24/05

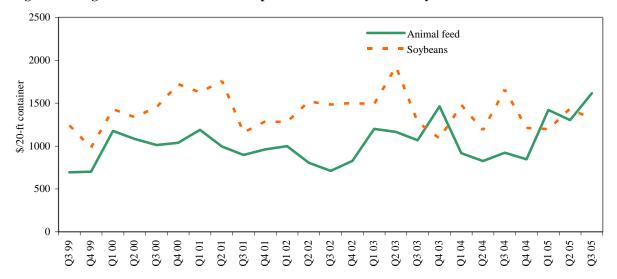
Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate (\$/metric ton)
U.S. Gulf	Kenya*	Sorghum&Corn	Dec 29/Jan 9	15,450 / 3,200	89.23
U.S. Gulf	Iraq	Wheat	Dec 14/18	50,000	52.50
U.S. Gulf	Japan	Hvy Grain	Nov 1/5	54,000	47.50
U.S. Gulf	Rotterdam	Hvy Grain	Dec 10/20	65,000	19.70
Australia	Italy	Wheat	Dec 5/25	55,000	26.00
Germany	Tunisia	Barley	Dec 6/12	25,000	24.25
River Plate	Italy	Hvy Grain	Jan 1/5	50,000	34.00
River Plate	Algeria	Hvy Grain	Dec 1/10	25,000	42.50
River Plate	Morocco	Hvy Grain	Oct 27/Nov 3	30,000	39.50
River Plate	Poland	Grains	Dec 25/Jan 5	30,000	39.00
Russia	Pakistan	Hvy Grain	Oct 15/20	55,000	32.50

Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

Source: Maritime Research Inc. (www.maritime-research.com)

<sup>\*75</sup> percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Figure 13
Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries



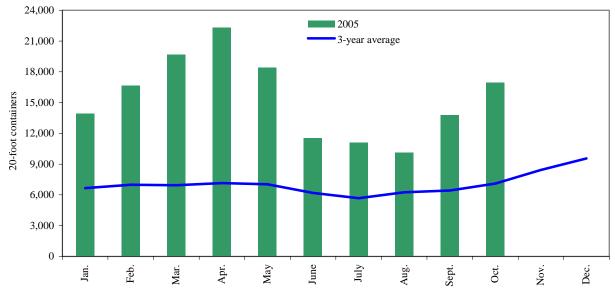
<sup>1</sup>Animal Feed: Busan-Korea (13%), Kaohsiung-Taiwan (35%), Tokyo-Japan (34%), Hong Kong (12%), Bangkok-Thailand (6%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (87%), Tokyo-Japan (9%), Bangkok-Thailand (2%), Hong Kong (1%) Quarter 3, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2004, containers were used to transport 2 percent of total U.S. grain exported, and 3 percent of total U.S. grain exported to Asia.

 ${\bf Figure~14} \\ {\bf Monthly~shipments~of~containerized~grain~to~Asia~for~2005~compared~with~a~3-year~average} \\$ 

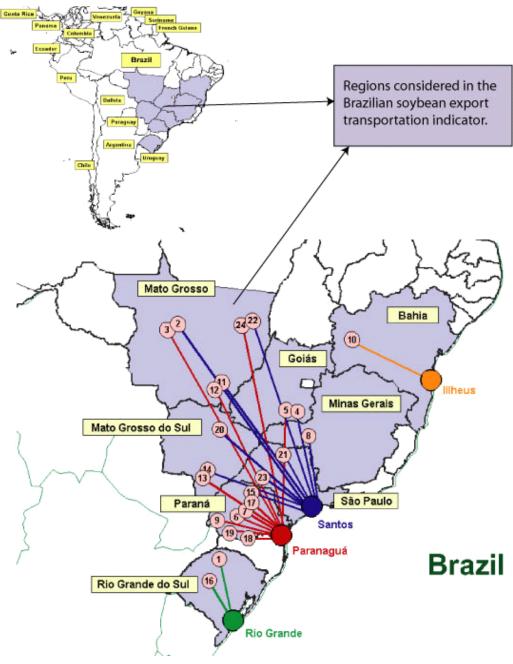


Source: Port Import Export Reporting Service (PIERS), Journal of Commerce

Note: PIERS data is available with a lag of approximately 40 days

## **Brazil Transportation**

Figure 15
Routes and Regions considered in the Brazilian soybean export transportation indicator<sup>1</sup>

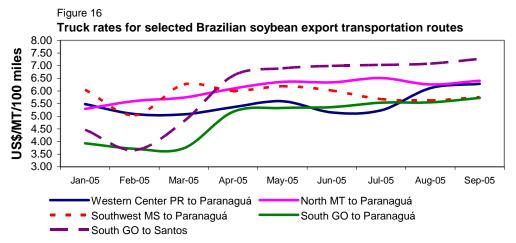


<sup>&</sup>lt;sup>1</sup>Regions comprised 84 percent of Brazilian soybean production, 2003 Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 18--Truck rates for selected Brazilian soybean export transportation routes, 3rd quarter 2005

	Origin <sup>1</sup>	•	Distance	<u>*</u>	Freight price
Route #	(reference city)	Destination	(miles) <sup>2</sup>	Weight(%) <sup>3</sup>	(per 100 miles) <sup>4</sup>
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.39
2	North MT(Sorriso)	Santos	1190	10.1	6.99
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.39
4	South GO(Rio Verde)	Santos	587	7.0	7.13
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.60
6	North Center PR(Londrina)	Paranaguá	268	4.4	8.49
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	5.88
8	Triangle MG(Uberaba)	Santos	339	3.8	9.93
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	5.95
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	7.56
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.76
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	6.14
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	5.69
14	Southwest MS(Maracaju)	Santos	652	2.9	5.66
15	West PR(Assis Chateaubriand)	Santos	550	2.5	5.65
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.60
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	8.34
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	9.53
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	8.32
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.25
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	7.98
22	Northeast MT(Canarana)	Santos	950	1.4	7.62
23	Assis SP(Palmital)	Santos	285	1.2	8.01
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	6.72
	Average		626	100	6.48

Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

<sup>&</sup>lt;sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>&</sup>lt;sup>3</sup>The weight is directly proportional to the amount of production in each region

<sup>&</sup>lt;sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>&</sup>lt;sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 19--Monthly Brazilian soybean export truck transportation cost index

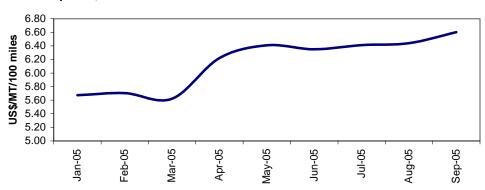
Tuble 15 Monthly Bruzinan soybean export track transportation cost mack						
Month	Freight price*	Index variation (%)	Index value			
Month	(per 100 miles)	(Base: prior month)	(Base: Jan. $05 = 100$ )			
Jan. 05	5.67		100.00			
Feb. 05	5.71	0.5	100.54			
Mar. 05	5.62	-1.5	99.08			
Apr. 05	6.22	10.6	109.61			
May 05	6.41	3.1	112.96			
Jun. 05	6.35	-0.9	111.90			
Jul. 05	6.41	1.0	112.99			
Aug. 05	6.44	0.4	113.46			
Sep. 05	6.60	2.5	116.36			

<sup>\*</sup>weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

Brazilian soybean export truck transportation weighted average prices, 2005



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\*

	2005	2005	2005
Ports	1st qtr	2nd qtr	3rd qtr
Santos	45.53	45.84	44.54
Paranagua	44.64	44.84**	43.54
Rio Grande	44.20	44.39	43.04

<sup>\*</sup>correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

<sup>\*\*</sup>Revised figure

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#### **Related Websites**

Agricultural Container Indicators Ocean Rate Bulletin http://www.ams.usda.gov/tmd2/agci/ http://www.ams.usda.gov/tmd/Ocean/index.asp

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